# Philips Medical Systems

## FIELD CHANGE ORDER — Service

| | | | | | |
|---|---|---|---|---|---|
| **Issued by** | : | PMS Hamburg | **Reference No.** | : | 00 135 005 |
| **Released** | : | G.Kramm | **Date** | : | June 1998 |
| **Pubilication No.** | : | 4512 980 56511 | **Product Group** | : | 742 |

**action for performance**

***OPTIMUS 50 / 65 / 80***

**APPLIES TO :**

All OPTIMUS 50 / 65 / 80 generators
9890 000 02001
- 9890 000 0211x
- 9890 000 0212x
- 9890 000 0213x
- 9890 000 0214x
- 9890 000 0215x

all Optimus generators up to and including serial numbers **970217**

**TITLE :**

Upgrade of Release 2.2 Optimus generators to Release 2.3

**LIST OF PAGES AND DRAWINGS :**

1 ... 3 (98.0)

**PREREQUISITE :**

If the generator has not been delivered with Release 2.2 (4512 114 20822, see STAMMKARTE) one of the following upgrades must have been carried out:

**4512 104 38561** Rel. 0.2/0.3/1.1 >> Rel. 2.2 (including TDC)
**4512 104 38611** Rel. 0.2/0.3/1.1 >> Rel. 2.2 (USA and AUS only)
**4512 104 38401** Rel. 0.2/0.3/1.1 >> Rel. 2.2 **FCO 00 135 002**
**4512 104 38801** Rel. 2.1 >> Rel 2.2 **FCO 00 135 003**

**INTRODUCTION**

**Symptoms :**

- Setting the kV steps while additionally operating a button causes the kV values to rise to the maximum value or drop to the minimum value even if the buttons are released (the same applies to mA and mAs)
- Delayed exposure end signal


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- Pressing the reset button and another button simultaneously after faulty exposure has the effect that the desk becomes inoperable.
- Sporadic display of 0..0 or 1..1 on the APR display or the main desk display.
- error combinations
  00CD - 08CF
  00CX - 08CY
  00CF - 08CY
- erros
  00CD, 00CY, 00CQ, 08CY
- "sleeping" error, which made the generator inoperable
  00E0
- errors during the switch - on phase
  00XI - 00M3

**Cause :**

Interferences and software instabilities can lead to different problems.

**Remedy :**

Release upgrade to release 2.3 including additional interference suppression activities.

## MANPOWER / TIME TO COMPLETE

1 engineer 4 hours

## TOOLS & TEST EQUIPMENT

- 3 + 4 mm Allan keys
- 10 mm open-end wrench
- low watt soldering iron with **fine tip**
- service PC with hardkey and mouse
- flash light
- PLCC extraction tool AMP 822154-1
  2422 487 89772
- standard tools

## MODIFICATION KIT / PARTS REQUIRED

For all systems mentioned in APPLIES TO, the following part can be ordered at the Service spare part centre in Hamburg:

**4512 104 39882** Upgrade kit OPTIMUS rel. 2.3

comprising:

| | |
|---|---|
| 4512 114 208**23** | set of Proms Rel. 2.3 |
| 4512 113 18027 | EZ 139 D4 |
| 4512 113 18037 | EZ 139 D5 |
| 4512 113 20121 | Prom kV control EZ 130 D 800 |
| 4512 113 20523 | Prom Human Interface C300 D2 |
| 4512 113 22312 | Prom Roco HS EY 100 D2 |
| 4512 104 90531 | CAN adapter EZX 45 |
| 4512 104 39901 | CAN termination plug |
| 4512 104 39381 | Roco interference suppression kit |
| 2022 333 00024 | 33nF capcitor (mA control) |
| 2012 573 00015 | 1nF capacitor (control desk) |
| 2222 682 10339 | 2x 33pF capacitor ( kV / mA control) |
| 4512 984 08411 | modification instruction |

**Note:**
The modification kit will be available Free Of Charge till the end December 1998 at the spare part centre in Hamburg.

## PROCEDURE

Detailed instruction manual supplied with the upgrade kit.

## PARTS DISPOSAL

All parts are to be disposed of in a safe way in accordance with Local Safety Regulations.

## DOCUMENTATION

File this FCO and the Upgrade instruction manual in binder: OPTIMUS under Tab 8


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# FIELD CHANGE ORDER
# ACTION NOTIFICATION REPORT

| | |
|---|---|
| TITLE: **Upgrade of Release 2.2 Optimus generators to Release 2.3** | |
| CLASSIFICATION: **Action for performance** | FCO REF NO.: **00 135 005** |
| APPLIES TO: **All OPTIMUS release 2.2 generators** | |

HOSPITAL / ADDRESS:

LOCATION /
FW SITE No.

SALES ORDER NUMBER /
OA NUMBER:

PRODUCT NUMBER:

UNIT SERIAL NUMBER:

**ACTION ON THIS UNIT WAS**: (select one)

Completed per instructions on _____
DATE

Done by the factory prior to delivery.

Not completed because this unit is not affected per instructions.

Not completed because customer has unit in storage

JOB NUMBER /
INCIDENT NUMBER

**CUSTOMER ACKNOWLEDGEMENT** (Required for MANDATORY ACTIONS only).

The REASON and PURPOSE of this modification have been explained to me.

_____ _____ _____
SIGNATURE DATE TITLE

Branch
Region/
Dealer. _____

Service unit /
Service area number: _____

_____
SERVICE ENGINEER'S SIGNATURE

_____
SERVICE MANAGER'S SIGNATURE

Date: _____

**MAIL TO: SSD Prep. Mgr.**


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## number of required kits for FCO 00 135 005 4512 104 39882

| Country | Number of Kits | Number of deliveries |
|---|---|---|
| Angola | 2 | |
| Australia | 43 | |
| Austria | 43 | |
| Belgium | 6 | |
| Bosnia | 6 | |
| Brazil | 21 | |
| Canada | 18 | |
| Chile | 19 | |
| China | 4 | |
| Colombia | 1 | |
| Czechoslovakia | 2 | |
| Denmark | 10 | |
| Egypt | 1 | |
| Estland | 2 | |
| Finland | 7 | |
| France | 55 | |
| Germany | 462 | |
| Ghana | 14 | |
| Greece | 3 | |
| Guadeloupe (France) | 1 | |
| GUS | 6 | |
| Hong Kong | 21 | |
| Hungary | 1 | |
| India | 1 | |
| Indonesia | 1 | |
| Ireland | 4 | |
| Israel | 37 | |
| Italy | 20 | |
| Japan | 2 | |
| Jordan | 5 | |
| Kenia | 4 | |
| Kuwait | 1 | |
| Libanon | 1 | |
| Libya | 3 | |
| Litauen (Germany) | 1 | |
| Livland (Germany) | 1 | |
| Malaysia | 10 | |
| Malta | 1 | |
| Morocco | 4 | |
| Namibia | 1 | |
| Netherlands | 98 | |
| New Zealand | 17 | |
| Norway | 9 | |
| Poland | 4 | |
| Portugal | 16 | |
| Russia (Germany) | 4 | |
| Saudi Arabia | 27 | |
| Singapore | 14 | |
| South Africa | 12 | |
| South Korea | 12 | |
| Spain | 56 | |
| Sweden | 33 | |
| Switzerland | 52 | |
| Tansania | 1 | |
| Thailand | 8 | |
| Turkey | 2 | |
| United Arab Emirates | 14 | |
| United Kingdom | 128 | |

| Country | Number of Kits | Number of deliveries |
|---|---|---|
| **USA** | **229** | |
| **West India (Netherland)** | **2** | |
| **Yugoslavia** | **1** | |